ABSTRACT

The specification discloses a consecutively wound or stacked battery system and a method for making these devices. In one aspect, battery cells are wound consecutively, separated by insulating layers, to form an integral battery system capable of producing multiple voltages. In a second, but related, aspect, multiple battery cells are wound consecutively on a large diameter mandrel, cut in a radial plane, and laid flat to form stacked battery systems capable of producing multiple voltages. Whether remaining in the consecutively wound configuration, or being cut to become a stacked cell configuration, each cell in these configurations may be selectively coupled to other cells within its consecutive winding or stack to produce desired output voltages and current ratings. In the case of the stacked battery system, this battery system may be selectively cut to provide amperage capacities to order. Moreover, the consecutively wound or stacked battery systems may also include capacitors, fuel cells, and the like, wound in the same fashion.